

REMARKS

Non-elected claims 1 to 41 have been canceled to advance prosecution. (The two-way restriction requirement between claims 1 to 41 and claims 42 to 63 and applicants' election with traverse of the latter group was confirmed in a paper filed March 16, 2004.) Applicants will rely upon the protections afforded by 35 USC 121 for any divisional application that may be filed directed to the non-elected subject matter.

The Examiner is thanked for acknowledging that photocopies of the certified priority documents have been received from the International Bureau and for listing the references submitted with an Information Disclosure Statement.

Claims 42, 43, 55, and 56 have been amended better to point out that which applicants regard as their invention. To eliminate any concern regarding the meaning of "higher" and "lower" etching rates, the claims now indicate in the independent claims that the ratio of the etching rate of the resin layers is in the range of 6 : 1 to 1 : 1, and, in the case of dependent claims 43 and 56, 4 : 1 to 1 : 1.

The rejection of claims 42 to 63 under 35 USC 102 as anticipated by WO '216, if applied to the claims as amended, is respectfully traversed. It is noted that the Examiner has

relied upon the U.S. equivalent (Shimose et al. Patent No. 6,203,918 B1) of the PCT document and applicants have also looked to the text of the U.S. patent while analyzing the rejection and developing the position presented in this reply.

The Examiner has cited various portions of Shimose et al. '918 in support of her position that the reference discloses a laminate having a stainless steel substrate, insulative polyimide layers thereon, and a final electrical conductor layer covering the polyimide layers, where each of those layers is etchable by hydrazine at rates of at least 0.5 micron per minute. The Shimose et al. '918 examples are said to show an etching rate ratio within the claimed range. Applicants say with respect that the reference does not teach or suggest what is claimed here.

The reference is silent regarding control of the ratio of the etching rate of the resin layers of the insulating layer to avoid the problem of an uneven etching shape as shown in instant Fig. 1. There is no mention of the shape of the laminate after etching. The specification at page 5, line 31 to page 6, line 32 and page 13, lines 24 to page 14, line 18 (and other places) contains a discussion of uneven shaping and the problems caused thereby.

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Moreover, experiments based upon Examples 1 to 6 of the reference have been carried out and establish that they do not have the claimed etching rate ratio of 6: 1 to 1 : 1. Applicants acknowledge and appreciate the analysis provided by the Examiner in the paragraph bridging pages 3 and 4 of the Office Action, but submit respectfully for the reasons given below that the reference does not teach what is claimed here.

In accordance with those experiments, the etching rates of the resins prepared in Synthetic Examples 1 to 6 are as follows:

Synthetic Example 1: 4.0 to 5.0 microns/min.

Synthetic Example 2: 6.4 to 6.9 microns/min.

Synthetic Example 3: 0.27 to 0.54 microns/min.

Synthetic Example 4: 0.06 to 0.23 microns/min.

Synthetic Example 5: 0.13 to 0.60 microns/min.

Synthetic Example 6: 0.5 to 1.0 microns/min.

The resins in Synthetic Examples 1 and 2 are classified as low expansion polyimides and have a higher etching rate in hydrazine. In contrast, the resins in Synthetic Examples 3 and 6 are classified as thermoplastic polyimides and have a relatively lower etching rate in hydrazine. The numbers above, however, clearly establish that none of the combinations of the resin layers described in Examples 1 to 6 of the reference fall

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within the claimed etching rate ratio of 6: 1 to 1 : 1. A Declaration Under 37 CFR 1.132 will be filed shortly in support of this position. (It is noted that the values giving for the etching rates of Synthetic Examples 1 to 6 differ from the numbers in the patent. There is reason to believe that the numbers in the patent were not taken from actual experiments.) If that paper is not of record when the Examiner takes the case up for further action, the Examiner is requested to contact the undersigned.

It is respectfully submitted that the claims patentably define over the cited art and the USPTO paper to those ends is earnestly solicited.

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The Examiner is requested to telephone the undersigned if additional changes are required in the case prior to allowance.

Respectfully submitted,

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